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Forecast of the Onset Date of Southwest Monsoon – 2026 over Kerala

1. Background

The advance of the southwest monsoon over the Indian mainland is marked by monsoon onset over Kerala and is an important indicator characterizing the transition from the hot and dry season to the rainy season. As the monsoon progresses northward, relief from scorching summer temperatures is experienced over the areas. Southwest monsoon normally sets in over Kerala on 1st June with a standard deviation of about 7 days. India Meteorological Department (IMD) has been issuing operational forecasts for the date of monsoon onset over Kerala from 2005 onwards. An indigenously developed state-of-the-art statistical model with a model error of ± 4 days is used for the purpose. The 6 Predictors used in the models are; i) Minimum Temperatures over North-west India, ii) Pre-monsoon rainfall peak over south Peninsula, iii) Outgoing Long wave Radiation (OLR) over south China Sea, (iv) Lower tropospheric zonal wind over southeast Indian ocean, (v) Outgoing Long wave Radiation (OLR) over the south-west Pacific region, and (vi) Lower tropospheric zonal wind over Northeast Indian Ocean.

IMD's operational forecasts of the date of monsoon onset over Kerala during the past 21 years (2005-2025) were proved to be correct except in 2015. Forecast verification for the recent 6 years (2020-2025) is given in the table below.

Year	Actual Onset Date	Forecast Onset Date
2020	1 st June	5 th June
2021	3 rd June	31 st May
2022	29 th May	27 th May
2023	8 th June	4 th June
2024	30 th May	31 st May
2025	24 th May	27 th May

2. Forecast for the 2026 Monsoon Onset over Kerala

This year, the southwest monsoon is likely to set in over Kerala on 26th May with a model error of ± 4 days.